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(71) Applicant: **Oki Electric Industry Company, Limited**  
**7-12, Toranomon 1-chome Minato-ku**  
**Tokyo 105(JP)**

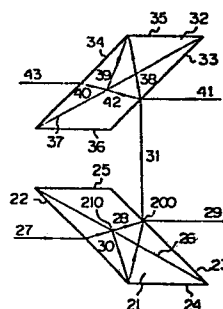
(72) Inventor: **Tokumaru, Syokichi**  
**OKI ELECTRIC IND. CO.LTD 7-12 Toranomon 1-chome**  
**Minato-ku Tokyo(JP)**

(74) Representative: **George, Sidney Arthur et al,**  
**GILL JENNINGS & EVERY 53-64 Chancery Lane**  
**London WC2A 1HN(GB)**

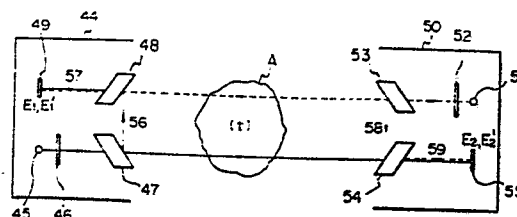
(54) **Apparatus for measuring optical transmission factor.**

(57) The optical transmission factor of an object (A) is measured by mutual measuring technology using a pair of identical units (44,50) located on opposite sides of the object. Each of the units (44,50) comprises a pair of beam splitters (47,48;53,54), a light source (45,46;51,52) for illuminating the object through a first beam splitter (47) and providing an offset beam (56) from the first beam splitter (47), and a photo-detector (49,55) for converting optical power from the other unit (50) and the offset beam (56). Each of the beam splitters (47,48;53,54) is substantially in parallelogram shape with two pairs of confronting planes (24,25; and 22,23), a first pair of the planes (24,25) being not perpendicular to the second pair of planes (22,23). One of the first pair of planes (24) is mirror coated for reflecting the beam internally, such that split beams (29,31) obtained from a single beam (27) share a common point (200) on the plane (23). Thus, dust and dirt free measurement using no mechanically moving means is accomplished.

*Fig. 4*



*Fig. 5*





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## EUROPEAN SEARCH REPORT

**0132370**

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EP 84 30 4868

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	DE-A-2 460 434 (BABCOCK & WILCOX CO.) * Page 1, lines 5-7; page 2, line 23 - page 3, line 27; page 10, lines 6-9,15,16; figure 1 *	1-4	G 01 N 21/59
Y	--- US-A-3 677 621 (F.H. SMITH) * Figure 1; column 1, lines 29-36; column 2, lines 25,28-54 *	1-4	
A	--- US-A-4 017 193 (L. LOITERMAN) * Abstract; column 11, lines 49-50; figure 3, column 6, lines 10,11 *	1	
A	--- DE-B-1 914 655 (E. SICK) * Claims 1-4; column 2, line 66 - column 3, line 4 *	1	
A	--- US-A-3 390 605 (T. NAGAMURA) * Abstract; column 2, lines 40-47 *	1	
A,D P	--- PATENT ABSTRACTS OF JAPAN, vol. 8, no. 215, 2nd October 1984, page (P-305) (1652); & JP-A-59-99333 (OKI DENKI) 08-06-1984 -----	1	
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 09-08-1985	Examiner BRISON O.P.
<b>CATEGORY OF CITED DOCUMENTS</b>			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	